

Medgyesi, György

Distr: 4E2c(j)/4E3d

293/69.

541.57:530.104

A new way for the calculation of the degree of polarity of chemical bonds, IV. Dependence of the charge at the elements of field D. (In English) B. Lakatos, J. Bohus, Gy. Medgyesi. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 21, 1969, No. 3, pp. 203-226, 10 figs., 6 tabs.

Using the most reliable ionization and excitation potential data of literature, the authors calculated the fundamental atomic constants, the effective nuclear charge numbers (Z^*), the screening numbers (S), the effective principal quantum numbers (n^*), radii (r) and the absolute values of the effective electric field strengths (F^*) for the free atoms and ions of the transition metals (D field). These calculations were made for pure d states. The values thus obtained are relatively the most reliable in the 3d range but less so in the 4d range due to uncertain ionization potential data. The Lisitzin-Kohlrausch interpolated values were used in the 5d range. In the course of further investigations the authors found that

in a range interesting from the viewpoint of the chemical binding forces the effective field strength of free transition metal atoms and ions is an exponential function of their charge. A relationship highly accurate in the whole range was found according to which the square root of the effective electric field strength is a linear function of the charge. Taking into account that during the formation of a chemical bond in equilibrium state the effective electric field strength of the cationic constituent equals that of the anionic, the estimation of the degree of polarity of the bond formed by transition metal atoms becomes possible with the aid of the formula

$$p = \frac{\log F_B^* - \log F_A^*}{(\log F_A^* + \log F_A^*) \delta_{\max}^{(d)} + (\log F_B^* - \log F_B^*) \delta_{\max}^{(D)}}$$

The values thus obtained are in good agreement with others stated in literature.

Inst. Inorganic & Analytical Chem, Univ. of Szeged

HUNGARY / Physical Chemistry. Molecule. Chemical Com- B
bination.

Abs Jour: Ref Zhur-Khimiya, No 20, 1959, 70348.

Author : Lakatos, B.; Bohus, J.; Medgyesi, G.

Inst : Not given.

Title : A New Method for Calculating the Degree of Pol-
arity of a Chemical Bond. II. Dependence of the
Effective Field Potential on the Effective Char-
ges of Atomic Nuclei in S and P Conditions. III.
Dependence of the Radii of Single-Charged Cations
and Anions on the Effective Nuclear Charge.
(Authors: Lakatos, B.; Bohus, J.)

Orig Pub: Magyar kem. folyoirat, 1959, 65, No 1, 1-20,
No 2, 45-50.

Abstract: II. Having determined the chemical bond p, as a
relation between the observed dipole moment and
the value calculated for a completely ionic bond,

Card 1/3

HUNGARY / Physical Chemistry. Molecule. Chemical Combination. B

Abs Jour: Ref Zhur-Khimiya, No 20, 1959, 70348.

Abstract: the authors introduced the conception of an effective field potential (EFP) in the molecule. For the isolated atom or ion, EFP is computed according to the formula $F^* = Z^*e/r^2$, where Z^* is the effective nuclear charge, and r is the radius of the atom (or of the ion). After having made the supposition that, at the formation of the A - B bond of the EFP atoms (ions), A and B equalize owing to the transfer of the electronic charge and that $\ln F^*$ appears to be a linear function of p , the authors derived a formula for the determination of p . The application of this formula to a great number of chemical bonds gave satisfactory results.

III. The following formula for the calculation

Card 2/3

HUNGARY / Physical Chemistry. Molecule. Chemical Com- B
bination.

Abs Jour: Ref Zhur-Khimiya, No 20, 1959, 70348.

Abstract: of the radius r of cations (anions) in a polar chemical bond is proposed: $r = CZ^*/r$, where Z^* is the effective nuclear charge and C is a linear function of the polarity of the chemical-bond p . This formula is employed for the calculation of EFP, taking into account the change of the cation and anion radii during the formation of the chemical bond. For Communication I, see RZKhim, 1959, No. 19, 67005.

Card 3/3

LAKATOS, Bela; BOHUS, Janos; MEDGYESI, Gyorgy

A new method for the calculation of the polarity degree of chemical bonds. IV. Dependence of the effective field strength on the charge of the elements of field D. Magy kem folyoir 66 no. 3:91-108 Mr '60.

1. Szegedi Tudományegyetem Szervetlen és Analitikai Kémiai Intézete.

LELEK, Istvan, dr.; FUREDI, SHABO, Marianne, dr.; MEDGYESI, Gyorgy, dr.

Effect of essential fatty acids on plasma lipid fractions in
experimental atherosclerosis. Orv.hetil. 101 no.49:1735-1738
4 D'60.

1. Soproni Allami Szanatorium, Belosztaly.
(ARTERIOSCLEROSIS exper)
(FATTY ACIDS pharmacol)
(LIPIDS blood)

NAGY, Laszlo; MEDGYESI, Gyorgy, dr.

Clinical effect of oral pancreatic extracts containing elastase in essential hyperlipemia. Orv. hetil. 103 no.31:1451-1452 5 Ag '62.

1. Allami Szanatorium, Sopron.
 (PANCREAS extracts) (LIPIDS blood)
 (PROTEASES pharmacol)

NAGY, Laszlo, dr.; TANAY, Istvan, dr.; MEDGYESI, Gyorgy, dr.

Clinical experiences with a new method to determine the serum lipid iodine number. Orv. hetil. 103 no.43:2026-2027 28 0 '62.

1. Soproni Allami Szanatorium, Gyor-Sopron megyei Tanacs Gyogyszertari Kospont.

(BLOOD LIPIDS)	(BLOOD CHEMICAL ANALYSIS)
(ARTERIOSCLEROSIS)	(DIABETES MELLITUS) (LIVER DISEASES)

Tests

HUNGARY

GERGELY, Janos, Dr, MEDGYESI, Gyorgy, Dr. HORVATH, Endre, Dr; National Blood Transfusion Service, Central Research Institute (director: HOLLAN, Zsuzsa, Dr) (Orszago: Vertransfuzios Szolgalat, Kozponti Kutato Intezet).

"The Positive Coombs Test."

Budapest, Orvosi Hetilap, Vol 107, No 34, 21 Aug 66, pages 1601-1602.

Abstract: [Authors' Hungarian summary] An experimental confirmation of the authors' hypothesis is presented according to which the positivity or negativity of the Coombs reaction depends on the orientation of the IgG-globulin present in specific or aspecific bonding at the surface of the erythrocytes. In the case of specific bonding the groups capable of reaction with the Coombs serum are "free" and the reaction is positive while, in the case of aspecific bonding the Fc-fragment reactive with the Coombs serum is bound to the surface of the erythrocytes and the reaction can not take place. 1 Hungarian, 7 Western references.

LAKATOS, Bela; BOHUS, Janos; MEDGYESI, Gyorgy

New method for the calculation of the polarity degree of chemical bonds. Pt. 2. Magyar kém folyoir 65 no.1:1-20 Ja '59.

1. Szegedi Tudományegyetem Szervetlen és Analitikai Kémiai Intézete.

Medgyesi, I.

85. Sealing tunnels against water incursion by the injection of bentonite. — J. Kelen, I. Medgyesi, Z. Kegyeli. (Alkalmazottaképzési Szemle — Vol. 1964, No. 11, pp. 580—582, 15 figs.)

Frequently, strata of quicksand had to be traversed in the construction of the cast iron tubbing-clad tunnels of the Budapest underground railway. The internal sealing of the sections posing the water logged soil masses with difficulties on account of the heavy surges of water very often under pressure. Internal sealing can be employed effectively only if the incursion is temporarily checked. The first attempts at sealing were made with the injection of cement mortar, however, these were unsuccessful. The injection of bentonite was then proposed by the authors. The effect of water on sand-bentonite mixtures as well as their behaviour from the viewpoint of soil mechanics was established in laboratory experiments. Along tunnel sections where the new method was tested in practice the injection of bentonite proved to be an effective method of sealing. At one of the investigated sections the original incursion of 4400 litres per hour was reduced to 6—8 litres per hour. The method is very economical and can be employed in other fields of civil engineering as well.

MEDGYESI, Ivan

Examination of underground water stream by radioisotopes. Energia es
atom 14 no.11:508-511 N '61.

1. Foldmero es Talajvizsgalo V.

MEDGYESI, Ivan

Deteriorating concretes. Eset tud 16 no. 41:1303-1306 8 0 '61.

MEDGYESI, Ivan

A new technical prescription against concrete corrosion.
Magy ep ipar, 12 no.5:197-201 '63.

CZERNY, Gyozo; MEDGYESI, Ivan; TOTI, Sandor

Plastic housings for protecting the superstructure of
nitrogen fertilizer plants against corrosion. Magyar ipar
12 no.5:228-234 '63.

MEIXIASI, Ivan, okleveles vegyesmérnök

Findings concerning the composition of layer waters and their aggressive effect on the concrete of the Budapest underground railway. Melyetlenszud szomle 14 no.11:506-513 N 1964.

1. Section Chief, Enterprise of Geodesy and Soil Research, Ministry of Construction, Budapest.

LISSAK, K.; MEDGYESI, P.; TENYI, I.; ZORENYI, I.

Influence of the adrencorticotrophic hormone on higher nervous activity.
Acta physiol. hung. 14 no.4:361-365 1958.

1. Physiologisches Institut der Medizinischen Universitat, Pecs.

(REFLEX, CONDITIONED, eff. of drugs on

ACTH on extinction of feeding reflexes in dogs (Ger))

(ACTH, eff.

on extinction of conditioned feeding reflexes in dogs (Ger))

ENDROCZI, E.; YANG, T.L.; LISSAK, K.; MEDGYESI, P.

The effect of stimulation of the brain stem on conditioned reflex activity and on behaviour. Acta physiol.hung. 16 no.4:291-297 '59.

1. Institute of Physiology, Medical University, Pecs.
(BRAIN STEM physiology)
(REFLEX CONDITIONED physiology)
(BEHAVIOR)

MEDGYESSY, P.

Non-Primitive Regular Graphs of the 1st Grade

Mathematics Review

Vol.

No.

gmu

MEDGYESSY, Pál

Mathematical Reviews
Vol. 15 No. 2
Feb. 1954
Analysis

Medgyessy, Pál. Sur quelques problèmes en relation avec la planche de Galton. Magyar Tud. Akad. Alkalm. Mat. Int. Közl. 1 (1952), 165-174 (1953). (Hungarian. Russian and French summaries)

This is a discussion of demonstrations which can be carried out on a Galton board. The board is modified by providing a movable row of receptacles which can be opened singly. E. Lukacs (Washington, D. C.).

MEDGYESSY, Pál

analog problems

Medgyessy, Pál. Un appareil nouveau pour la synthèse et
l'analyse de Fourier ainsi que pour des problèmes ana-
logues. Magyar Tud. Akad. Alkalm. Mat. Int. Közl. 2

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033210018-2

(1953), 179-185 (1954), (Hungarian, Russian and
French summaries)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033210018-2"

MEDGYESSY, P., AND OTHERS.

MEDGYESSY, P., AND OTHERS. Mathematical investigation of chemical
countercurrent distribution in the case
of incomplete diffusion. p. 81.

Vol. 3, No. 1/2, 1954 (published 1955)

KOZIMENYI

SCIENCE

Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

MELOYESSY, P.

MELOYESSY, P. Decomposition of discrete compound probability distributions. p. 139.

Vol. 3, No. 1/2, 1954 (published 1955)

KOMIENNYI

SCIENCE

Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

MEDGYESSY, P.

MEDGYESSY, P. Recent results in the decomposition of compound
probability distributions. p. 155.

Vol. 3, No. 1/2, 1954 (published 1955).

KOZLEMENYEI

SCIENCE

Budapest, Hungary

Sci: East European Accession, Vol. 5, No. 5, May 1956

MEDGYESSY, Pal.

MAGOS, Laszlo; MEDGYESSY, Pal

Mathematical evaluation of electrophoretogram. Kiserletes orvostud.
6 no.4:367-369 July 54.

1. Orszagos Munkasegszsegugyi Intezeto.

(ELECTROPHORESIS

of blood proteins, mathematical evaluation)

(BLOOD PROTEINS, determ.

electrophoresis, mathematical evaluation)

Medgyessy, P. Product integration, Fourier-synthesis and
similar operations carried out by means of a square
planimeter and a new apparatus. Magyar Tud. Akad.
Alkalm. Mat. Int. Közl. 3 (1954), 129-137 (1955).
(Hungarian. Russian and English summaries)

Math

6

Sum

MEDGYESSY, P.

4927:

Medgyessy, Pál. A mechanical functional synthesizer. Magyar Tud. Akad. Mat. Kutató Int. Közl. 2 (1957), 33-42. (Hungarian and Russian summaries)

The author describes a mechanical analog device for computing partial sums, $\sum_{k=0}^N a_k f_k(x)$, on a finite set of points, $x_i, i=1, \dots, m$. With some tinkering, the gadget can be altered to accommodate any given set of functions, $f_k(x)$.

E. K. Blum (Los Angeles, Calif.)

DOBRUSIN, R.L. [Dobrushin, R.L.]; MEDGYESSY, Pal [translator]

General formulation of Shannon's basic theorem in the field of information theory. Mat kozl MTA 11 no.4:428-456 '61.

1. Magyar Tudomanyos Akademia Matematikai Kutato Intezete (for Medgyessy).

MEDGYESSY, Pal

Two principles for direct registration of a given function of photographically registered variable quantity. Magyar fiz folyoir 10 no.1:15-20 '62.

1. Magyar Tudomanyos Akademia Matematikai Kutatointezete, Budapest.

MEDGYESSY, Pal

On the interconnection between the representation theorems of characteristic functions of unimodal distribution functions and of convex characteristic functions. Mat kut kozl MTA 8 series A no. 3:425-430 '63('64).

1. Editorial board member, "A Magyar Tudomanyos Akademia Matematikai Kutato Intezetenek Kozlemenyei."

MEDGYESSY, Pal

Description of the form of distribution and density function
graphs. Pt.1. Mat kozl MTA 14 no.3:279-292 '64.

L 36022-66 IJP(c)

ACC NR: AP6027342

SOURCE CODE: HU/0026/66/016/001/0047/0064

AUTHOR: Modgyessy, Pal

ORG: none

TITLE: Numerical solution of an ¹⁶integral equation of the convolution type and its application to the decomposition of superpositions of Gaussian functions

SOURCE: MTA. Matematikai es fizikai osztalyanak koslemenyei, v. 16, no. 1, 1966, 47-64

TOPIC TAGS: numeric solution, integral equation, approximate solution

ABSTRACT: It was shown that under certain conditions the exact solution of the integral equation discussed can be made by an equation described. On this basis an approximate solution is given by a linear expression of the observed values. The numerical solution can be applied to the decomposition of the superposition of the Gaussian functions. An example from the area of plasma-protein investigation was presented. Orig art. has: 31 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 01Sep65 / ORIG REF: 002 / OTH REF: 005

MOLNAR, Lajos, dr.; FEHER, Mihaly, dr.; MEDGYESY, Zoltan, dr.

Medical experiences in connection with the XIIth Summer
Collegiate World Championship. *Nepesegsegugy* 37 no.7:
186-190 July 56.

1. Kozlemený a XII. Nyári loiskolai Vilagbajnoksag Szervezo
Irodaja Egeszsegugyi Osztalyarol (osztalyvezeto: Molnar, Lajos,
dr.).

(ATHLETICS

med. serv. for the XIIth Summer Collegiate World
Championship in Budapest (Run))

U. D. HUNTER
1980. Hippuric acid synthesis in relation to age. T. A. Meditsinsk
Nauk. Zap. Latv. Univ., 1954, 28, 113-117; Kazda, 28, 616.
Khm., 1953, Abstr. No. 14769. The quantity of hippuric acid
excreted in the urine during the 4 hr. following oral administration
of Na benzoate is considerably greater in puppies than in grown
dogs. In the normal animals without administered benzoate this
difference with age is not seen. (Russian) T. R. PARSONA

MEDIANIK I. A.

✓ 1953. Influence of higher central nervous centres on secretion of
bile in dogs of various ages. I. A. Medianik *Dokl. Leningrad. Univ.*
1953, 5, 31-33; *Referat. Zh. Biol.* 1953, Abstr. No. 70969
Amplification of positive defence conditioned stimuli to 3 months old

1953, 5: 31-34. Referrat Zh. Biol. 1957, August, No. 7: 3988
Application of positive valence conditioned stimuli to 3 months old and fully grown dogs led, at first, to a fall in the continuous secretion of bile (to one third), in puppies 39-49 days old, on the contrary, to a two-fold increase. Application over a prolonged period of time of a positive conditioned stimulation to grown dogs produced a temporary rise in bile secretion and return to the original level; in 3 months puppies there was always a lowering of bile secretion. The application of a differentiated stimulus in a grown dog produced an increase of this quantity of bile, for example to 14 times; in 3 months old puppies, on the contrary, a fall (approx. to one half) continued to be observed. The change of bile production is explained by cortico-subcortical inductive interactions. (Ruslan)

RUMANIA

VEVERA, Val., MD; STANESCU, D., MD; IONESCU, Cristina, MD;
MEDIANU, I., MD.

Medical Clinic of the "Fundeni" Clinical Hospital (Clinica
Medicală a Spitalului clinic "Fundeni"); Director:
Professor C. C. Dimitriu. - (for all)

Bucharest, Viata Medicală, No 5, 1 Mar 63, pp 335-340.

"Arterial Hypertension Secondary to Unilateral Stenosis of
the Renal Artery."

(4)

MEDIANU, L.

To economize metals is necessary for socialist industrialization of
our country. p. 7. TEHNICA NOUA. (Asociatia Stiintifica a Inginerilor si
Tehnicienilor) Bucuresti. Vol. 2, no. 16, June 1955

So. East European Accessions List

Vol. 5, No. 9

September, 1956

L 41541-65

ACCESSION NR: AP5012415

RU/0003/64/015/009/0575/0575

12
B

AUTHOR: Florea, V.; Aiteanu, E.; Medianu, M.; Bucur, I.

TITLE: Contributions to the methodology of the physical-chemical control of spiramycin

SOURCE: Revista de chimie, v. 15, no. 9, 1964, 575

TOPIC TAGS: antibiotic, chromatographic analysis, pharmacology

Abstract: The authors developed a paper-chromatographic method

SP212010111 000000 000000 000000
Orig. art. has 1 formula and 2 tables.

ASSOCIATION: none
SUBMITTED: 00

ENCL: 00

SUB CODE: LS, GC

NO REF SOV: 000

OTHER: 007

JPRS

Card 1/1 *ELM*

FLOREA, V.; GRINTESCU, P.; MEDIANU, M.

Chemical determination of erythromycin pills. Rev chimie Min
petr 15 no.6:359 Je '64.

FLOREA, V.; AITEANU, EL.; MEDIANU, M.

Contributions to the physicochemical control methodology of
aminosidine sulfate (Gabbromycin). Rev chimie Min petr 15 no.
7:423-424 J1 '64

MEDIC, Franjo, ing.

High-quality prestressed screws in steel structures. Stroj vest 6 no.
4/5:1-8, 121-133 S '60. (BEAI 10:5)

1. Avtomacija v Ljubljani
(Screws) (Steel)

Medic, Mira, ed.

SERBIA

The progressive press in Serbia, 1871-1949 Beograd, 1949. 137 p. (52-28919)

PN5355.S4A5 1949

MEDIC, Rusa

"Professional scientific library" by J.Brämer and D.Vogel.
Reviewed by Rusa Medic. Stroj vest 8 no.1/2:34 Ap '62.

MEDIC, Vjenceslav, inz.

Commassation of lands with a short outline of its individual
operational stages. Geod list 17 no.7/9:270-288 J1-S '63.

MEDILEK, A. ; JANDA. J.

File foundations. p. 535.

ENERGETIKA. Praha, Czechoslovakia. Vol. 9, no. 10, Oct. 1959.

Monthly list of East European Accessions (EEAI) LC. Vol. 9, no. 2, Feb. 1960
Uncl.

MEDIN, M.

The sick rate is falling. Okhr. truda i sots. strakh. no.3:29-30
S '58. (MIRA 12:1)

1. Predsedatel' zavkoma profsoyuza Ryaznskogo zavoda tyazhelego
kuznechno-pressovogo oborudovaniya.
(Ryazan---Industrial hygiene)

L 10017-63 EFF(n)-2/EPR/EWG(k)/BDS/T-2/ES(v)/ES(w)-2--AEDC/AFTC/AFWL/ASD/
ESD-3/SSD--Pa-4/Pa-4/Pz-4/Pz-4/Pab-4/P1-4--IJP(G)/AT/WW

ACCESSION NR: AP3003450

S/0179/63/000/003/0003/0008

AUTHOR: Gubarev, A. V. (Moscow); Kovbasyuk, V. I. (Moscow); Medin, S. A. (Moscow); Sheydlin, A. Ye. (Moscow); Shumyatskiy, B. Ya. (Moscow) 96

TITLE: Constant-velocity flow of electroconductive gas in the channel of a magnetohydrodynamic generator 25

SOURCE: AN SSSR. Izv. Otdel. tekhn. nauk. Mekhanika i mashinostroyeniye, no. 3, 1963, 3-8

TOPIC TAGS: magnetohydrodynamic generator, electroconductive gas, moving plasma

ABSTRACT: An analytical investigation is made under the following assumptions: 1) the gas is ideal, nonviscous, and nonheat conductive; 2) the channel flow is quasi-unidimensional; 3) the gas is electrically neutral; 4) the magnitude of the secondary magnetic field is negligible in comparison with that of the external field; 5) the gas conductivity is constant and isotropic; and 6) the electrode potential difference is constant. Equations determining the motion of an

Card 1/2

L 10017-63

ACCESSION NR: AP3003450

electroconductive gas in an MGD generator were established in accordance with Neyringer's investigation of 1961 (Neyringer. Optimal'naya generatsiya moshchnosti dvizhushcheyasya plazmoy. Sb. perevodov "Dvizhushchayasya plasma," IL, 1961) and expressed in pertinent parameters. Because the solution of these equations requires an additional condition, it was assumed that the flow of gas takes place either with constant electric efficiency or constant magnetic gap. It was found that constant-magnetic-gap generators at pressure $p = 0$ generate their net power in proportion to the magnitude of local electric efficiency at the channel entrance. Constant-electric-efficiency generators require relatively high local electric efficiencies along the total channel length to insure high internal generator efficiencies. In high-power installations, channels with increasing magnetic gap are found to be preferable. Orig. art. has: 9 figures and 13 formulas.

ASSOCIATION: none

SUBMITTED: 03 Jun 62

DATE ACQ: 24 Jul 63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 001

Card

2/2

L 00488-66

EWI(1)/EWP(m)/EPA(s)-2/EPA(sp)-2/EWO(v)/EWA(d)/EPA(w)-2/T-2/EWA(m)-2
TJP(c) AT

ACCESSION NR: AP5020568

UR/0294/65/003/004/0641/0644
538.4

AUTHOR: Medin, S. A.

TITLE: The variational problem of flow in the channel of a magnetohydrodynamic generator 21.44.66

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 4, 1965, 641-644 50
11 B

TOPIC TAGS: MHD generator, flow analysis, heat transfer

ABSTRACT: The article presents solutions to two variational problems of flow in a magnetohydrodynamic generator having a minimum length at given values of heat transfer and internal efficiency, with a constant velocity or a constant Mach number for the flow. The article also gives a comparison between these solutions and the solutions of corresponding non-variational problems, including the additional condition of the constant value of the efficiency along the length of the channel. The two cases considered are: a generator with constant flow velocity and a generator with a constant Mach number. It is demonstrated that, under certain limiting conditions, the solution for a generator with constant Mach number

Card 1/2

L 00488-66

ACCESSION NR: AP5020568

reduces to the solution for a generator with a constant velocity. Orig. art. has:
25 formulas and 1 figure

ASSOCIATION: Nauchno-issledovatel'skiy institut vysokikh temperatur (High
Temperature Research Institute)

SUBMITTED: 05Apr65

ENCL: 00

SUB CODE: EE, ME

NR REF SOV: 001

OTHER: 002

Card 2/2

L 11943-66 EWT(1)/ENP(m)/EWA(d)/T-2/FCS(k)/EWA(m)-2/EWA(1) LIP(c) AT

ACC NR: AF6001917

UR/0294/65/003/006/0924.0926

AUTHOR: ^{44, 55}Medin, S.A.; ^{44, 55}Prokudin, V.A.

ORG: ^{44, 55}High Temperature Research Institute (Nauchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: ⁴⁵The quasi one-dimensional flow problem in a Hall magnetohydrodynamic generator

SOURCE: Teplofizika vysokikh temperatur, v.3, no.6, 1965, 924-926

TOPIC TAGS: magnetohydrodynamics, plasma generator, Hall effect, Faraday effect, flow analysis

ABSTRACT: ^{21, 44, 55}At large Hall numbers in a magnetohydrodynamic generator it is necessary to use a special scheme for connecting the electrical load. In the general case, flow in a Hall generator differs from flow in a Faraday-type sectioned generator, not only in electrodynamics but also in hydrodynamics. The presence of a transverse component of the electrical force in the channel can lead to a strong sideways drawing-in of the flow and to distortion of the line of the current. For this reason, generally speaking it is necessary to consider the two-dimensional problem in an investigation of the movement of the carrier gas in the flat channel of a Hall magnetohydrodynamic generator. However, solution of

UDC: 621.313.12:538.4

L 11943-66

ACC NR: AP6001917

this problem is extremely difficult, and it is therefore of interest to consider an approximate investigation of the flow. The remainder of the article consists of a theoretical and mathematical demonstration that, in a majority of practically important cases, that is to say, at high Hall numbers, the problem can be reduced to the one-dimensional case. Orig. art. has: 20 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: 27Aug65/ ORIG REF: 003/ OTH REF: 000

MEDIN, S.M., inzh.

Calculations for prestressed concrete elements with reinforcement
without anchors. Trudy NII ZHT no.24:267-274 '61. (MIRA 16:5)
(Prestressed concrete)

HUNGARY/Nuclear Physics - Structure and Properties of Nuclei

C-4

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 19856

Author : Medina F.M., Sussmann G.

Inst : ~~Not Given~~

Title : Optical Model of the Nucleus

Orig Pub : Magyar fiz. folyoirat, 1957, 5, No 6, 537-574

Abstract : See Referat Zhur Fizika, 1957, No 6, 13791

Card : 1/1

HUNGARY/Nuclear Physics - Structure and Properties of Nuclei

C-4

Abs Jour : Ref Zhur - Fizika, No 1, 1959, No 385

Author : Medina F.M., Sussmann G.

Inst : -

Title : Optical Model of the Nucleus, VII-IX.

Orig Pub : Magyar fiz. folyoirat, 1958, 6, No 1, 55-80

Abstract : See Referat Zhur Fizika, 1958, No 9, 19866.

Card : 1/1

MEDINETS, B.M.

Technical conference at the Kiev Control and Measuring Instrument
Plant. Sakh.prom. 28 no.7:48 '54. (MLRA 8:1)
(Sugar industry--Equipment and supplies)

MEDINETS, B.M.; GNIDKO, K.P.; KUDRYAVTSEV, V.I., spetsredaktor; BUDAYEVA,
V.A., redaktor; KISINA, Ye.I., tekhnicheskiy redaktor

[Optical instruments and their use in the food industry] Opticheskie
pribory i ikh ispol'sovanie v pishchevoi promyshlennosti. Moskva,
Pishchepromizdat, 1956. 62 p. (MLRA 10:2)
(Optical instruments)

MEDINETS, B.M.; ZATVORNITSKIY, A.A.

RM refractometer for fats. Masl.-zhir.prom.21 no.1:23-25 '56.
(MLRA 9:6)

1.Kiyevskiy zavod KIP.
(Refractometer) (Oils and fats--Analysis)

MEDINETS, B.M.

Optical instruments made by the Karl Zeiss Plant. Sakh.prom. 30
no.1:23-28 Ja '56. (MLBA 9:6)

1.Kiyevskiy zavod KIP.
(Germany, East--Optical instruments)

MEDINETS, B.M.

Refractometry for sugar solutions. Sakh.prom.30 no.11:56-60 N '56.
(MLRA 10:2)

1. Kiyevskiy zavod kontrol'no-izmeritel'nykh priborov.
(Refractometry) (Sugar--Analysis and testing)

MEDINETS, B.M.

New refractometers. Priborostroenie no.4:29-30 Ap '57.
(MIRA 10:5)

(Refractometer)

1. MEDINETS, V. D.
2. USSR (600)
4. Botany - Physiology
7. Harvest from the point of view of its development in different stages of growth.
Sel. i sem. 19 no. 10, 1952
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

MEDINETS, V. D.

Phenomenon of material legacy according to the theory of vegetative hybridization. Usp. sovrem. biol. 33 no.2:273-286
Mar-Apr 1952. (CML 22:2)

1. Khar'kov.

MEDINETS, V. D.

Hybridization

Effect of the mother organism upon the behavior of reciprocal hybrids. Dokl. AN SSSR 83
No. 2, 1952.

See Monthly List of Russian Accessions. Library of Congress. August

²
1952, Uncl.

MEDINET, V.

"The phenomenon of maternal heredity in the light of the theory of vegetative hybridization"
Tr. from the Russian p. 87. (Analele Romano-Sovietice, Seria Biologie, Series a II-a
v. 8, no 1, Jan/Mar 1953 Bucuresti)

EAST EUROPEAN Vol 2 No 9
SO: Monthly List of ~~Russian~~ Accessions, Library of Congress, September 1953, Uncl.

MEDINETS, Yu. (UB5UG) (Kiyev)

Matching and balancing of an antenna. Radio no. 7:23 J1 '62.
(MIRA 16:6)

(Radio—Antennas)

84623

9,1200 (1006,1024,1050)

S/107/60/000/009/002/002
E192/E482

AUTHOR: Medinets, Yu.

TITLE: Five-Range Vertical Antenna^{25b}

PERIODICAL: Radio, 1960, No.9, p.44

TEXT: The vertical antennas having the directional pattern "close" to the horizon have recently become popular since they are suitable for long distance communications. The antenna described has a matching device which covers five ranges without switching. A standing wave is formed in the line consisting of the antenna and a section of coaxial cable which is open circuited at its ends. The electrical length of the line is equal to half the wavelength at 80 m, so that the line resonates at all even harmonics. A graph showing the current distribution along the line is given in Fig.1. The size of the radiating portion of the line is chosen on the basis of the optimum directional patterns and, in principle, it can be quite arbitrary. Very good results are obtained with the rod having a height of 9 m, so that at 14 m range this amounts to 0.625 wavelength and at 20 m it is 0.5 wavelength. The point of connecting the feeder is chosen so that the input impedances of the antenna at various ranges do not vary excessively. For the feeder

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S/107/60/000/009/002/002
E192/E482

Five-Range Vertical Antenna

were obtained; 3 - 3.5 at 80 m, not less than 1.5 at 40, 20 and 14 m and not less than 2 at 10 m. Constructionally, the antenna is similar to the usual "ground plane" antenna. The vertical part is made of a set of dural tubes having diameters from 35 to 20 mm. The antenna is employed at the radio station UB5UG; it has been in operation since July 1959. The antenna has a sufficiently large bandwidth and does not require tuning. At 20 and 14 m, the antenna is superior to the "ground plane" antenna. It is also very effective at 40 m. At 10 m it can be used to receive short wave signals from Far East (in Kiyev). The antenna is also satisfactory at 80 m. There are 2 figures. ✓

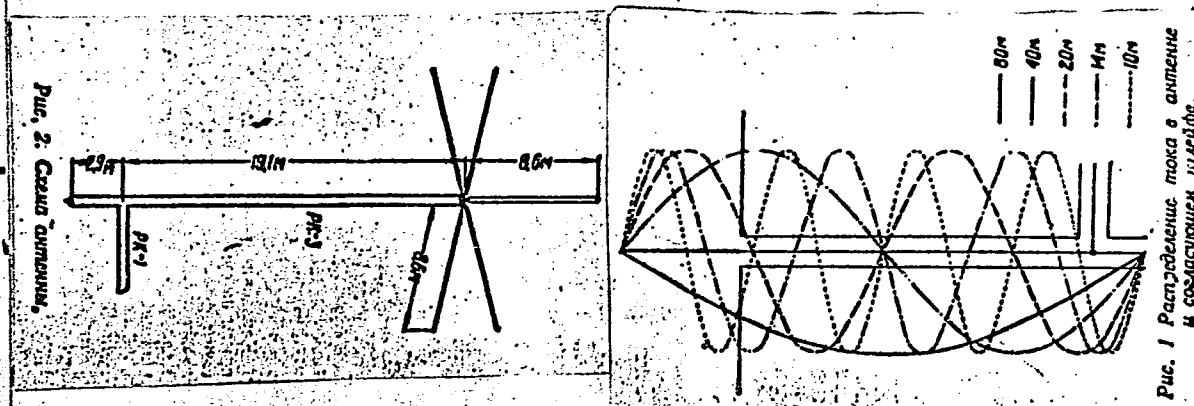
ASSOCIATION: UB5UG

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S/107/60/000/009/002/002
E192/E482

Five-Range Vertical Antenna

Fig.2. Antenna Circuit



KOLOSov, Yu.; BADULINA, N.; BYKADOROVA, T.; MEDINSKAYA, N.

Advertise more! Grazhd.av 17 no.9:26 S '60.

(MIRA 13:9)

1. Korrespondent "Grazhdanskoy aviatsii" (for Medinskaya).
(Advertising--Aeronautics, Commercial)

MEDINSKAYA, N.

In the service of aeronautics. Grazhd.av. 18 no.5:10-11 My '61.
(MIRA 14:5)

(Radio in aeronautics)

MEDINSKAYA, Z., jurist

Question is correct but its scope is limited. Okhr. truda i
sots. strakh. 4 no. 2:35 F '61. (MIRA 14:2)
(Pensions)

MEDINSKIY, A.O. [Medyns'kyi, A.O.], inzh.-elektrik

Compensation of the power factor of rural electric plants. Mekh.
sil'. hosp. 11 no.12:10-11 D '60. (MIRA 13:12)
(Electric power plants)

MEDINSKIY, B.E.; MIL'NER, Ye.D.

Experiment in constructing a blast-furnace and sintering factory
in the Orsk-Khalilovo Metallurgical Combine. Prom. stroi. 41
no.10:28-33 O '63. (MIRA 16:11)

1. Trest Novotroitskmetallurgstroy.

MEDINSKIY, G. M., and SLAVNIN, N. I.

"The Problem of the Carrying of Leptospira of the Monyakov Type (DV-B) by Gray Rats in the Estonian SSR," by N. I. Slavnin and G. M. Medinskiy, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 27, No 9, Sep 56 pp 77-60

In a study of regional epidemiology conducted December 1956-April 1955, an attempt was made to demonstrate reservoirs of leptospirosis among rodents in the Estonian SSR. Various species of rodents were trapped in different areas of the republic and were examined bacteriologically and serologically by standard methods. The first of two tables which are included shows positive results of the investigation of gray rats exhibiting two strains of Leptospira, Monyakov (DV-B) and grippotyphosa. The second table shows that results of agglutination and lysis reactions with sera from rats from which cultures of Leptospira of the Monyakov type had been isolated were more sharply pronounced with homologous cultures than with cultures of the grippotyphosa type.

The following conclusions were derived from these results:

"1. The fact that gray rats carry *Leptospira* in the Estonian SSR was established for the first time. Through these observations it was noted that foci in which gray rats carried *Leptospira* of the Monyakov (DV-B) type were very small.

"2. In a significant percentage of the sera of gray rats investigated by the agglutination-lysis reaction, antibodies to the Monyakov and grippotyphosa types of *Leptospira* were observed. The frequent observation of agglutinins to the grippotyphosa type in the blood of gray rats requires further study.

"3. The positive results from the research has once more emphasized the necessity for more intensive study of the problems of regional epidemiology."

Sum 1050

USSR / General Problems of Pathology. Allergy.

U

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51513.

Author : Medinskiy, G. M., Razumeenko, T. V.

Inst : Not given.

Title : Allergic Manifestations in Man Produced by In-
oculation of Live Plague Vaccine.

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiologii, 1957,
No 7, 136.

Abstract: Two days following vaccination with live plague
vaccine, the vaccinated patient developed mal-
aise, articular pains and an elevation of tem-
perature to 39.4°C. Antibiotic therapy failed
to improve the condition. Anti-allergic therapy,
begun on the 7th day, caused marked improvement.

Card 1/1

15

MEZINSKIY, G. M.

"Results of the study of the reservoirs of leptospirosis infections in the Estonian SSR." p. 157

Desyatoye Soveshchaniye po parazitologicheskim problemam i prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

TALLIN

MEDINSKIY, G. M., SHCHERBAKOV, I. F., SAFRONOV, A. F.

"The insular focus of tularemia." n. 20"

Desyatoye soveshchaniye po parazitologicheskim problemam i prirodnoocharovym
boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological
Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad,
1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 256nn.

TOKAREVICH, K.N.; MEDINSKIY, G.M.

Preservation of tularemia bacteria during streptomycin therapy.
Trudy Len.inst.epid.i mikrobiol. 20:130-133 '59. (MIRA 16:1)
(TULAREMIA) (STREPTOMYCIN)

MEDINSKIY, G.M.; LESSMENT, L.K.; SAFRONOV, A.F.; TOKAREVICH, K.N.,
prof., nauchnyy rukovoditel'

Outbreak of leptospirosis infection among silver-black foxes.
Trudy Len.inst.epid.i mikrobiol. 20:165-170 '59. (MIRA 16:1)
(LEPTOSPIROSIS) (SILVER FOX—DISEASES AND PESTS)

MEDINSKIY, G.M.; RAYA, R.A. [Raja, R.]; TOKAREVICH, K.N., prof., nauchnyy
rukovoditel'

Data on the susceptibility of the dogs and cats in the Estonian
S.S.R. to Leptospira infection. Trudy Len.inst.epid.i mikrobiol.
20:171-174 '59. (MIRA 16:1)

(ESTONIA— DOGS—DISEASES AND PESTS)

(ESTONIA—CATS—DISEASES AND PESTS)

(LEPTOSPIROSIS)

MEDINSKIY, G.M. (Tallinn)

Microfocal nature of leptospirosis in Estonia. Zhur.mikrobiol.
epid. i immun. 30 no.3:75-79 Apr '59. (MIRA 12:5)
(LEPTOSPIROSIS, transm.
natural foci in Estonia (Rus))

a-3

BC

Behaviour of aromatic compounds at the
anode in nitric acid solutions. C. B. MARIKANT
(Acta Univ. Aulis Mediae Tashkent), 1938, Ser. VI,
No. 6; 8 pp.). Experiments on the electrolytic
nitration of $\text{OH-C}_6\text{H}_4(\text{NO}_2)$, PhSO_3H , and C_6H_5
in presence of KNO_3 and NaNO_3 show that only the
compounds insol. in H_2O were nitrated. H_2O -sol.
compounds were predominantly oxidized.

Cy. App. (c).

Solar evaporation of hygroscopic substances under Central Asian conditions. Kh. B. Medinskii, J. Cherv. Ind. (Moscow) 1934, No. 6, 59-61.—Natural brines and salts of $MgCl_2$ and $CaCl_2$ can be evapd. by the heat of the sun in the Tashkent region. H. M. Leicester

CR

7

Examination of the Mindalev method for the volumetric determination of sulfates. Kh. H. Medinskii, V. L. Nibopol'skaya and M. D. Trusov. *Zavodskaya Lab.* 3, 230-1 (1934).—The results of the method of Mindalev (C. A. 23, 1184) for the detn. of sulfates by titration of the neutral aq. soln. with 0.1 N $\text{Pb}(\text{NH}_3)_2$ in the presence of KI are affected by many factors. The method is impractical and can be used only in cases when time is more important than accuracy. Chas. Blanc

ASAC-LLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND GROUES PROCESSES AND PROPERTIES INDEX

18

Burning nonindustrial sulfur ore from Shor-Su. Kh. B. Medinskii and P. I. Balaban. *J. Chem. Ind. (Moscow)* 1934, No. 8, 21-8.—Types of ovens for burning low-grade S ores are discussed. H. M. Leicester

COMMON ELEMENTS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<i>BC</i> <i>B-I - 1</i> <i>Best heat for evaporation of solutions of hydro- scopic substances under Central Asiatic conditions. O. B. Kuznetsov (J. Chem. Ind. Russ., 1934, 19, No. 6, 69-71).—Natural salines and eq. MgCl₂, CaCl₂, NaCl, and H₂PO₄ can be evaporated to dryness by exposure to the sun during all seasons of the year at Tashkent. R. T.</i>																			
ASS. S. S. A. METALLURGICAL LITERATURE CLASSIFICATION										AUXILIARY INDEX									
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1ST AND 2ND CHOICES		3RD AND 4TH CHOICES	
PROCESSES AND PROPERTIES INDEX			
5C Combustion of low-grade sulphur ores of Schor- Sch. O. B. MARGARIT and P. I. BALABAN (J. Chem. Ind. Russ., 1934, 10, No. 8, 23-28).—S-containing calcareous minerals (I) (5-24% S) can be roasted in ovens of simple construction, heated at 800° before introducing (I); the heat of combustion of S suffices to maintain the temp. at < 290° during the process, which is con- tinuous. The flue gases contain 6-12% of SO₂, irrespective of the composition of (I) and representing > 90% of its S content. R. T.		B.T.8	
ASH-STA METALLURGICAL LITERATURE CLASSIFICATION			
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RECORD NO.		RECORD NO.	

1ST AND 2ND STAGES		PROCESSING AND PROPERTIES NOTES		3RD AND 4TH STAGES	
3C		Preparation of magnesium oxide from brine. G. B. Mamonov and M. D. Turov (J. Chem. Ind. Russ., 1935, 12, 697-699).—The chief difficulties in the prep. of MgO from natural salines, by the reactions $MgSO_4 +$ $CaCl_2 \rightarrow CaSO_4$ (I) + $MgCl_2$; $MgCl_2 + Ca(OH)_2 \rightarrow$ $CaCl_2 + Mg(OH)_2$ (II), lie in the slow rate of sedi- mentation of (I) and (II), and in the formation of imper- meable layers when the ppt. are filtered. Max. velocity of sedimentation and filtration of (I) is obtained when the $[MgSO_4]$ is $> 5\%$, using somewhat $<$ the equiv. amount of $CaCl_2$ at room temp. The rate of filtration of (II) falls rapidly with time after pptn., and with increasing $MgCl_2$. The cost of $MgCl_2$ so prepared is $>$ that of $MgCl_2$ derived from magnesite. B. T.		B-I-8	
AD-664 METALLURGICAL LITERATURE CLASSIFICATION					
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SYNONYMS		FROM MAP ONLY		FROM ONLY	

1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
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✓ <i>Moscow Sher-Su sulfur ores. Kh. B. Medinskii, G. I. Antonenko, M. D. Trusov and P. T. Belenka. For Chem.</i> <i>3. Sud. (Moscow) 12, 1152-6(1935); cf. C. A. 29, 200. Nonindustrial S ores, such as tripod, can be burned in a shaft furnace without reference to particle size. Details of the construction and operation of such furnaces are given. H. M. Leicester</i>																																																			
ADDITIONAL METALLURGICAL LITERATURE CLASSIFICATION																																																			
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7

sw

Determination of halogen in organic compounds in the presence of elementary sulfur. Kh. B. Medinskii and I. V. Kostrov. *Zavodskaya Lab.* 6, 626 (1967). A modified Dennstedt procedure is described. Oxygen is passed through a heated tube containing a weighed substance (PhCl) in an ampoule with a capillary opening. The vaporized substance is ignited in the connecting quartz tube containing Pt spiral. The SO₂ and Cl are absorbed in dil. 0.5 N NaOH, the soln. is acidified with H₂SO₄ and the Cl is detd. by potentiometric titration with 0.01 N AgNO₃ and Ag electrode. Chas. Blanc

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES MORE																			
04 17 Preparation of quinine iodo-hydriodide. S. N. Naumov and C. B. Medvedev. <i>Acta Univ. Acad. Medice (Tashkent)</i> VI, No. 22, P-8 (1947).—20 g. of KI in 100 ml. of H₂O is added to a soln. of quinine sulfate 8, H₂SO₄ 8, and Fe-(NH₄)₂(SO₄)₄·12H₂O 20 g. in 800 ml. of H₂O, and the product is twice recryst. from 1% H₂SO₄ in 85% EtOH. B. C. P. A.																			
METALLURGICAL LITERATURE CLASSIFICATION																			
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CA

Reaction between sulfur dioxide and oxides of nitrogen
Kh. B. Medinskii, *J. Gen. Chem.* (U. S. S. R.) 8, 1552
(in English, 1952) (1958). This work was undertaken
with the object of clarifying a number of contradictions
found in the literature in regard to the reactions: $SO_2 +$
 $NO_2 = SO_3 + NO$ and $SO_2 + NO + O_2 = SO_3 + NO_2$.
These reactions were studied in the presence and absence
of H_2O , their course being followed by the manometric
method. In the absence of H_2O the reactions do not take
place. Water vapor and org. compds. catalyze the reac-
tions. The only reactants are H_2O , SO_2 and NO_2 , whereas
 O_2 and N_2O_5 do not participate in the reactions. The re-
actions are not sensitive to light. S. L. Madorsky

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ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Reaction between sulphur dioxide and oxides of nitrogen. O. B. MANDELSTAM (E. Gen. Chem. Russ., 1933, 8, 1562-1563).—SO₂ does not react with NO₂ in absence of H₂O. Since H₂O is bound by the reaction products the reaction does not proceed to completion in presence of limited amounts of H₂O. NO, N₂O₃, and O₃ do not take part in the reaction. The reaction is not promoted by light. R. T.

COMMON ELEMENTS										PROCESSING AND PREPARATION INDEX										COMMON VARIANTS INDEX									
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